

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)	
)	
Spectrum Needs of Emergency)	WT Docket No. 05-157
Response Providers)	
)	

**COMMENTS OF THE
FLORIDA DEPARTMENT OF TRANSPORTATION**

The Florida Department of Transportation (“FDOT”) hereby submits comments in response to the Public Notice in the above-captioned proceeding.¹

I. INTRODUCTION

FDOT is a licensee of public safety land mobile radio spectrum. FDOT’s operation is statewide and primarily confined to VHF low band with frequencies authorized at 45 and 47 MHz. FDOT has operated in this band for over 50 years. To

¹ *Public Notice*, FCC 05-80 (released March 29, 2005).

meet specific localized requirements, FDOT supplements its communications with service from commercial wireless providers.

II. DISCUSSION

In recent years, FDOT has initiated a program to improve the capacity, coverage, and functionality of its wireless communications system. VHF low band operation no longer satisfies the demands of today's highway maintenance operations, which have been expanded into new roles in support of public safety and enhanced roadway management through deployment of intelligent transportation systems (ITS).

FDOT's statewide VHF low band radio system consists of simplex base stations and mobiles. Within each of the seven FDOT Districts, stations were traditionally deployed at FDOT offices and maintenance yards utilizing short towers (60 - 100 feet AGL). Because of low height and high ambient noise levels, coverage is minimal for these stations resulting in gaps in our communications. Moreover, the system design limits a particular office or yard to the coverage of its locally installed base station. More recently, FDOT has been able to fill some of these gaps with taller towers but more facilities are required to further close the gaps in coverage.

With the advent of regional traffic management centers within the FDOT Districts, a much more cohesive and controlled network of communications is required to fulfill FDOT's new mission of public safety and ITS. In considering its options, FDOT looked first at the Florida State Law Enforcement Radio System (SLERS), which is an

existing statewide system of communications operating in the 800 MHz band utilizing trunking technology. The SLERS coverage criteria is 98 percent mobile coverage statewide, which is ideally suited for FDOT and far exceeds the availability which FDOT currently realizes with its VHF low band system. Originally constructed to satisfy the communications requirements of Florida's law enforcement agencies, the State has determined that expansion in terms of capacity and coverage will be afforded to those entities having a public safety mission and are the licenses of public safety 800 MHz frequencies. While possessing the mission criterion, FDOT has no statewide 800 MHz frequencies with which to become a full participant of SLERS. However, because FDOT's Motor Carrier Compliance Division has law enforcement powers, this Division has been migrated to SLERS from VHF low band. Additionally, FDOT has recently completed a pilot project demonstrating that its Road Ranger Program which patrols selected Interstate Highways aiding stranded motorists can, indeed, operate on SLERS with almost negligible impact to State law enforcement operations. FDOT is optimistic that the Road Ranger program will be sanctioned by SLERS management for permanent operation on SLERS.

While making worthwhile improvements to segments of its operation, FDOT's highway maintenance activities remain steadfastly at VHF low band. Today, no other useable spectrum is available statewide for FDOT highway maintenance operations. To mitigate its lack of capacity, coverage and functionality, FDOT is currently undertaking a project to establish a network of multicasted and voted mobile relay stations operating at 45 and 47 MHz. This deployment is strictly a short-term measure intended to provide

stop-gap relief while FDOT waits for the 700 MHz band to become available statewide or for the Commission to provide relief by other spectrum allocations. The intended improvements to VHF low band communications will still fall short of FDOT's requirements for capacity, coverage, and functionality.

In its wireless communications planning, FDOT sees great promise in the State of Florida spectrum allocation at 700 MHz. However, statewide access to that spectrum is currently blocked by continued TV broadcast operations. FDOT will not take a piecemeal approach to deployment of statewide communications and begin build-out now of facilities when complete statewide access to the band is uncertain. Given this failure to fully realize the original mandate by Congress to make 24 MHz of spectrum available at 700 MHz to public safety agencies, FDOT welcomes the provision of the Intelligence Reform Act requiring the Federal Communications Commission to assess the short-term and long-term spectrum needs of emergency response providers.

Respondents to the Commission's Request are asked to identify specific frequency bands, which can be designated for additional spectrum allocations to emergency response and interoperability communications. They are also asked whether or not an additional allocation in the 700 MHz band should be granted by Congress to Federal, State, and local emergency response providers.

The statewide mission of the FDOT requires a sufficient amount of "green space" to deploy a communications system capable of satisfying its requirements for capacity,

coverage, and functionality across the State of Florida. The 700 MHz band could meet these requirements if it were not for geographic limitation on spectrum access because of incumbent TV broadcast operations. Moreover, the 700 MHz band presents the greatest opportunity today for interoperability among disparate emergency response providers, especially given the broadened eligibility, spectrum set-asides, and technology available to this band to carry out these communications.

In its 1996 Report, the Public Safety Wireless Advisory Committee (PSWAC) recommended that 97.5 MHz of additional spectrum is needed for public safety. The current allocation of 24 MHz of public safety spectrum at 700 MHz is a significant step in satisfying the needs of the nation's emergency response providers including the FDOT but not if that allocation cannot be practically realized as is the case in Florida.

In its Request, the Commission notes the allocation of 50 MHz of spectrum in the band 4940-4990 MHz for broadband and advanced technology applications in support of public safety. The nature of this allocation is such that FDOT cannot consider operation in this band because of the restrictions on eligibility and use. In short, FDOT's public safety operations are blocked from this band.

The Commission's Request also inquires whether emergency response providers may benefit from using commercial wireless technologies. FDOT does, indeed, supplement its internal communications with commercial wireless service. However, FDOT cannot consider commercial wireless service for primary mission critical

communications. Such attempts in using commercial wireless service proved unreliable during the four hurricanes affecting Florida in 2004. In fact, the FDOT realized first hand that its private VHF low band communications facilities were more dependable during these events.

III. CONCLUSION

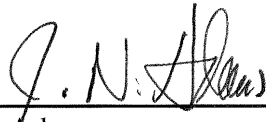
FDOT would certainly consider spectrum other than 700 MHz were it made available for statewide use in Florida and possessed the capability for the capacity, coverage, and functionality required by FDOT. Within each of the seven FDOT Districts, the spectrum must be sufficient to support simultaneous and disparate activities (*capacity*). Additionally, the spectrum must be common and available statewide to support inter-District operations and mutual aid restoration activities (*coverage*). Finally, the spectrum must be flexible in its use to support integrated mission critical voice and data communications related to all aspects of FDOT operations (*functionality*).

FDOT believes that the 700 MHz band represents its best opportunity for an advanced, statewide system of communications supporting the safety of the motoring public. Given this position and the overwhelming benefits to be gained from operation in this band, FDOT is willing to wait a reasonable time for incumbent TV operations to be cleared. However, any timetable much beyond the contemplated December 31, 2006 objective for clearing the band of TV operations will severely strain the operations of FDOT and other Florida emergency response providers with the result that pent-up demand for spectrum may affect available capacity. Therefore, FDOT strongly suggests

that Congress consider an additional allocation of spectrum at 700 MHz to meet both short-term and long-term needs.

Respectfully submitted,

Florida Department of Transportation

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